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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,313	08/11/2006	Shinichiro Isobe	2006_1029A	9079

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WENDEROTH, LIND & PONACK, L.L.P.
1030 15th Street, N.W.,
Suite 400 East
Washington, DC 20005-1503

EXAMINER	
YANG, JAY	

ART UNIT	PAPER NUMBER
1786	

NOTIFICATION DATE	DELIVERY MODE
12/23/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com
eoa@wenderoth.com

Office Action Summary	Application No.	Applicant(s)	
	10/584,313	ISOBE, SHINICHIRO	
	Examiner	Art Unit	
	J. L. YANG	1786	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/25/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Applicant's Amendment filed 10/25/10.

Response to Amendment

1. The rejection of Claim1 under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 2004/0219387 A1) in view of VanSlyke et al. (US 4,720,432 A) and Tashiro et al. (US 5,059,863 A) in the Office Action filed 07/23/10 is **NOT** overcome by amendment.

2. The rejection of Claim 9 under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 2004/0219387 A1) in view of VanSlyke et al. (US 4,720,432 A), Tashiro et al. (US 5.059,863 A), and Nakatsuka et al. (JP 2003-151778 A) in the Office Action filed 07/23/10 is overcome by cancellation.

Claim Rejections – 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

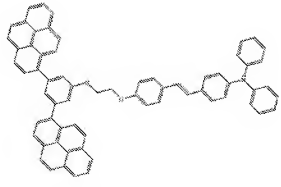
1. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

    1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 2004/0219387 A1) in view of VanSlyke et al. (US 4,720,432 A) and Tashiro et al. (US 5,059,863 A).

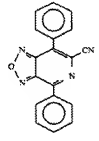
Li et al. discloses an organic EL device comprising an emission layer (103, Fig. 1) that comprises a compound of the formula H_0-(X-(R)$_m$-X-G)$_n$ ([0024]) where X = O, S, R = alkyl group, G = chromophore, and H_0 = conjugated chromophore with hole-transporting or electron-transporting properties ([0034]). Li et al. discloses the following embodiment:



((ii), page 4) such that L = A_1-R_1-A_2 where R_1 = alkylene group (ethylene), A_1 = heteroatom (oxygen), and A_2 = ether group and Y = polycyclic aromatic compound (substituted pyrenyl phenyl). However, Li et al. does not disclose X or Y as recited in the claim. Nevertheless it would have been obvious to let H_0 = anthracene in the formula as disclosed by Li et al. as shown above such that X = anthracene in the formula as claimed by the Applicant. The motivation is provided by the fact that Li et al.

allows H_0 = host material including aromatic aryl groups and polycyclic fused groups or combinations thereof, in addition to the fact that anthracene is a known host material for use in organic EL devices as disclosed by VanSlyke et al. (col. 1, line 32), rendering such an incorporation predictable with a reasonable expectation of success.

Tashiro et al. discloses the following organic luminescent compounds:



(col. 7, (9)) as material for the organic luminescent layer such that $R_1 = R_2$ = phenyl. Tashiro et al. further discloses that the cyanide group can be replaced by hydrogen (col. 2, lines 14-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the light-emitting compound as disclosed by Tashiro et al. as the chromophore in the compound in the organic EL device as disclosed by Li et al. in view of VanSlyke et al. The motivation is provided by the fact that the light-emitting compound as disclosed by Tashiro et al. exhibits high luminance even at a low driving voltage (col. 1, lines 44-45), in addition to the fact that Li et al. discloses that G = conjugated chromophores having at least one nitrogen and heteroaromatic rings ([0036]), which renders the substitution predictable with a reasonable expectation of success.

Response to Arguments

1. The Applicant argues on page 4 that one of ordinary skill in the art would have no motivation to incorporate anthracene for X. However, it should be noted that Li et al. discloses H_o = host moiety ([0016]) in addition to the fact that VanSlyke specifically discloses anthracene as suitable host material for an organic EL device (col. 1, line 32). Thus, the incorporation of H_o = X = anthracene would inherently meet the limitations of the claim.

2. The Applicant argues on page 5 that there would have been no reason to one of ordinary skill in the art to combine Li et al. with VanSlyke et al. and Tashiro et al. in regards to the incorporation of the oxadiazolopyridine group for the chromophore. However, it would should noted that the compounds as disclosed by Tashiro et al. are directed to organic compounds for use as light-emitting material (col. 1, lines 42-45) in the light-emitting layer of an organic EL device, rendering their incorporation for chromophore G in the formula as disclosed by Li et al. predictable with a reasonable expectation of success.

3. The Applicant argues that none of the references disclose an organic EL device comprising an organic layer of a single-layer sandwiched between a pair of electrodes. The Examiner disagrees. Li et al. clearly discloses that the compound represented by H_o-(L-G)$_n$ is incorporated into the light-emitting layer that can be one of several layers between a pair of electrodes ([0026], Fig. 1).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. L. YANG whose telephone number is (571)270-1137. The examiner can normally be reached on Monday to Thursday from 8:30 am to 6:00 pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571)272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1786

/J. Y./
Examiner, Art Unit 1786